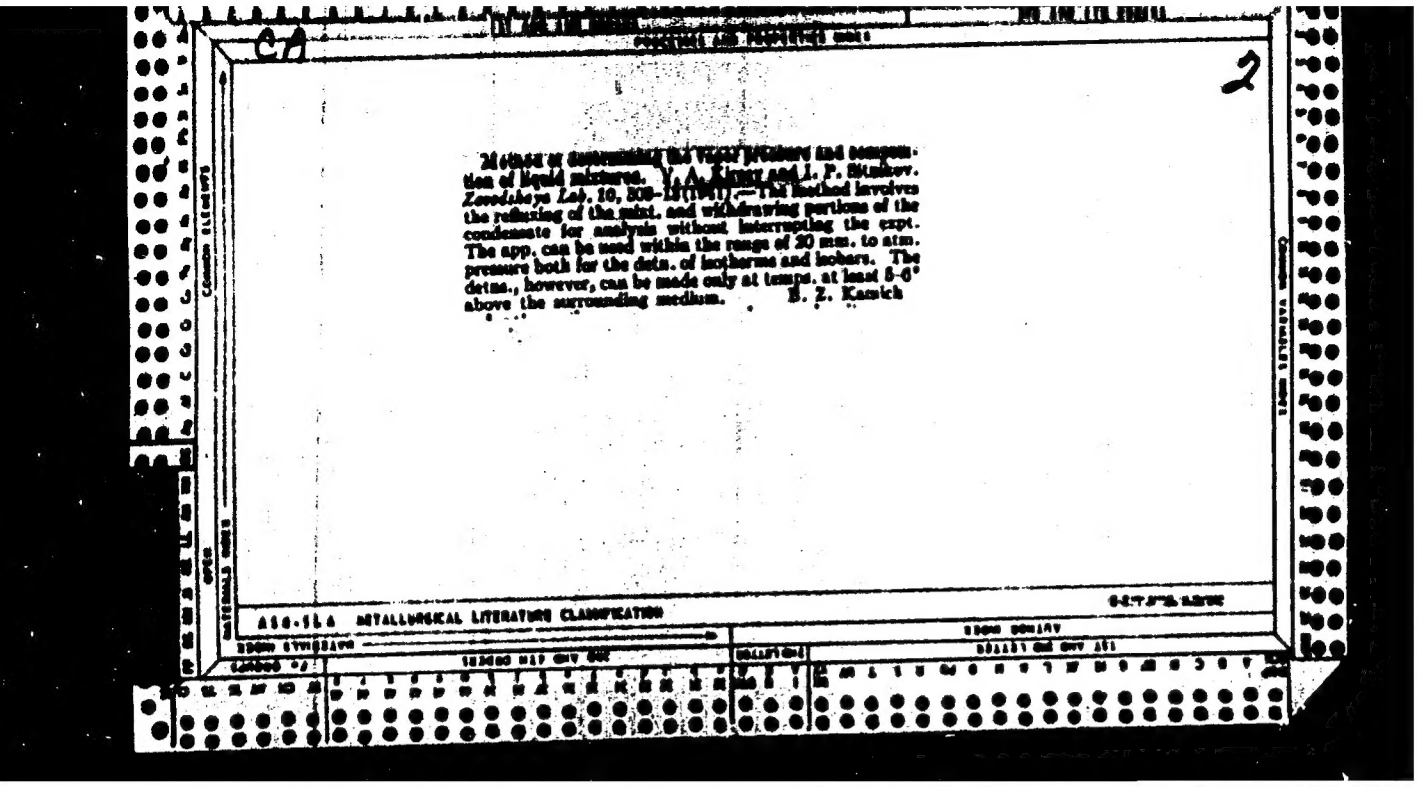


CA

2

Method of determining the vapor pressure and composition of liquid mixtures. V. A. Kireev and I. P. Stankov. *Zavodskaya Lab.* 10, 808–12(1941).—The method involves the releasing of the mixt. and withdrawing portions of the condensate for analysis without interrupting the expt. The app. can be used within the range of 20 mm. to atm. pressure both for the detn. of isotherms and isobars. The detns., however, can be made only at temps. at least 5–6° above the surrounding medium. S. Z. Kamich

A56.15A METALLURGICAL LITERATURE CLASSIFICATION

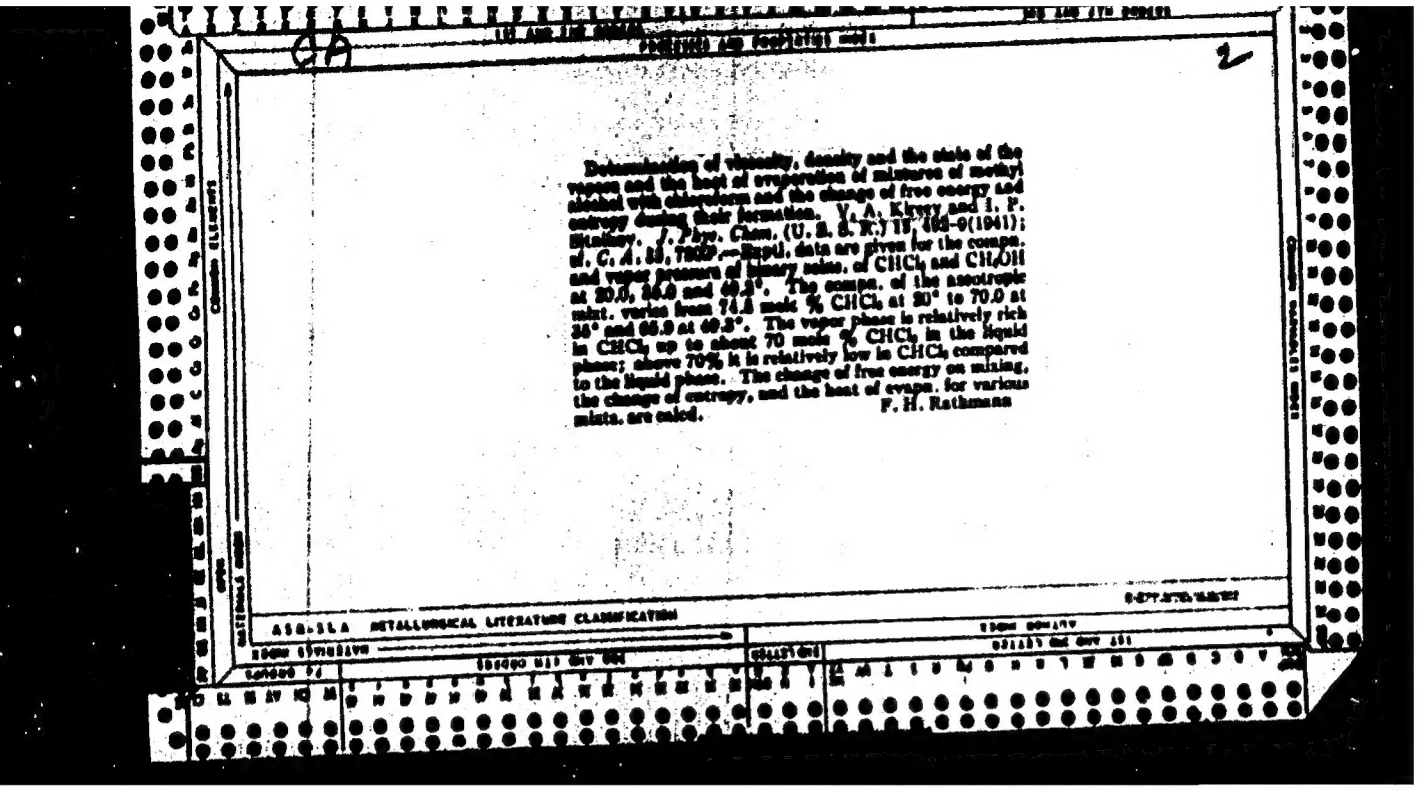
2

Determination of the pressure of saturated bromoform vapor. V. A. [illegible] and I. P. Sitnikov. J. Applied Chem. (U.S.S.R.) 14, [illegible]-6 (in German, [illegible])(1941).—Vapor pressure of bromoform was detd. at 20-100°. The results agree with those of various authors, including the data by [illegible] (Siedetemperatur und Druck. Leipzig ([illegible])); they are different from those by Schulze (C. A. 18, [illegible]).

A. A. Boehtlingk

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

Theory of azeotropic mixtures. V. A. Kireev (*J. Phys. Chem. Russ.*, 1941, **15**, 481—491). — The composition of azeotropic mixtures depends on the ratio of the v.p. of the pure components and on the degree of deviation of the v.p. of the mixture from Raoult's law. The temp. coeff. of the composition depends on the difference between the heats of vaporisation of the pure components and the free energy of mixing J. J. H



Determination of viscosity, density and the state of the vapors and the heat of evaporation of mixtures of methyl alcohol with chloroform and the change of free energy and entropy during their formation. V. A. Kireev and I. P. Stankevy. *J. Phys. Chem. (U. S. S. R.)* 15, 101-9(1941); cf. *C. A.* 35, 7802.—Expil. data are given for the compn. and vapor pressure of binary solns. of $CHCl_3$ and CH_3OH at 20.0, 34.9 and 49.2°. The compn. of the azeotropic mixt. varies from 71.8 mole % $CHCl_3$ at 20° to 70.0 at 34° and 66.9 at 49.2°. The vapor phase is relatively rich in $CHCl_3$ up to about 70 mole % $CHCl_3$ in the liquid phase; above 70% it is relatively low in $CHCl_3$ compared to the liquid phase. The change of free energy on mixing, the change of entropy, and the heat of evapn. for various mixts. are calcd.

F. H. Rathmann

KIREYEV, V. A.

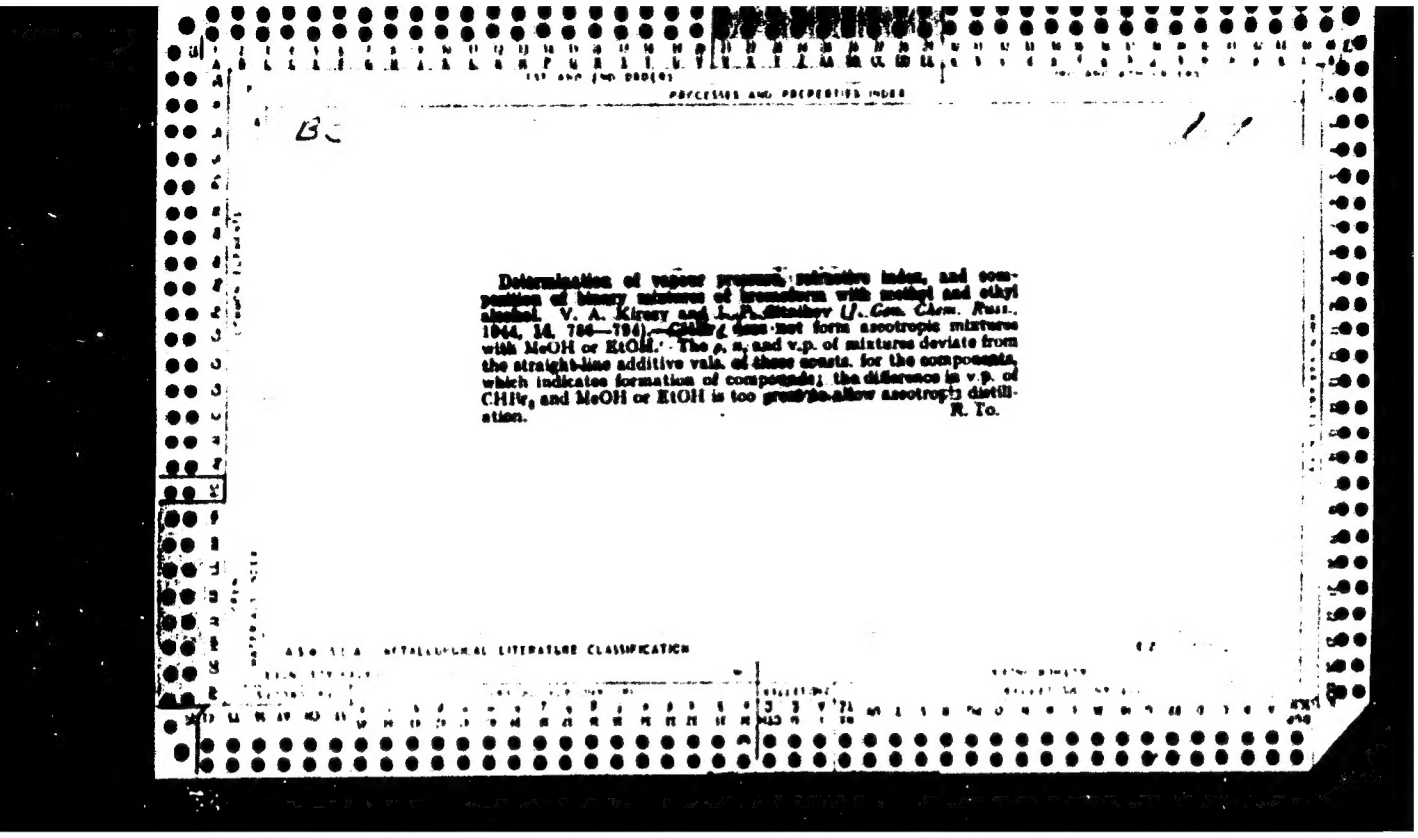
"On the Reciprocal Solubility of Liquids", Zhur. Fiz. Khim. 16, Nos. 3-4, 1942. Moscow, All-Union Scientific - Research Chemico-Pharmaceutical Institute, Physico-Chemical Laboratory. Received 24 May 1941.

Report U-1523, 24 Oct. 1951.

KIREYEV, V. A.

"On Full and Surplus Exchanges of Free Energy in the Formation of Liquid Mixtures and Solutions", Zhur. Fiz. Khim., 16, Nos. 3-4, 1942. Moscow, All-Union Scientific-Research Chemico-Pharmaceutical Institute, Physico-Chemical Laboratory. Received 24 May 1941.

Report U-1523, 24 Oct. 1951.



PROCESSES AND PROPERTIES INDEX

B-

1 1

Determination of vapour pressure, refractive index, and composition of binary mixtures of bromoform with methyl and ethyl alcohol. V. A. Kireev and L. P. Efimov *U. Gen. Chem. Russ.*, 1944, 14, 786—794).—CHBr$_3$ does not form azeotropic mixtures with MeOH or EtOH. The p, n_D, and v.p. of mixtures deviate from the straight-line additive vals. of these constts. for the components, which indicates formation of compounds; the difference in v.p. of $CHBr_3$ and MeOH or EtOH is too great to allow azeotropic distillation.

R. To.

ASTIA METALLURGICAL LITERATURE CLASSIFICATION

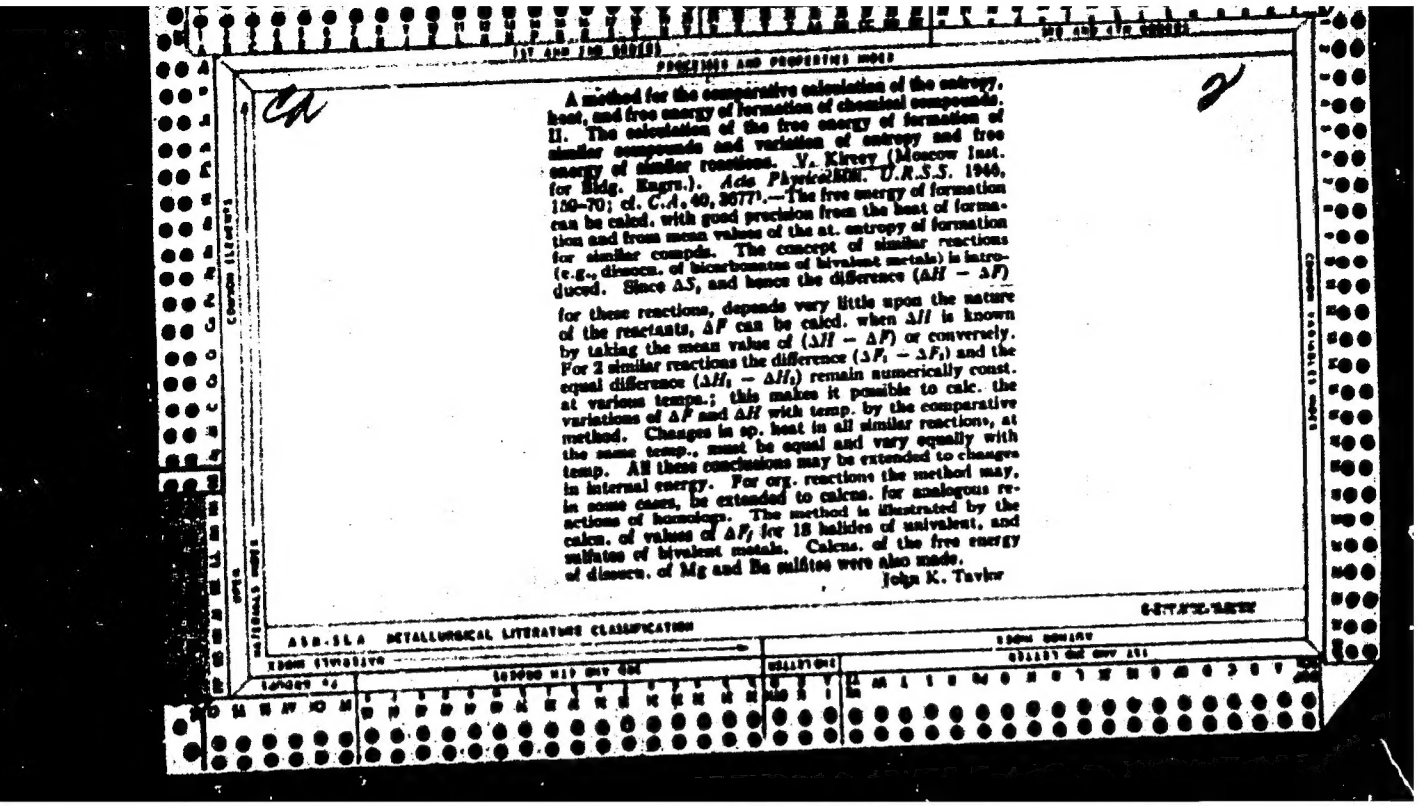
CA

A method for comparative calculation of the entropy, heat, and free energy of formation of chemical compounds. I. The entropy of formation of inorganic compounds from atoms under standard conditions. V. Kireev (Kuibyshev Inst. Bldg. Eng., Dept. Chem., Moscow). *Acta Physicochim. U.R.S.S.* 20, 903-22(1945). -The attempt is made to establish some relations of a more general nature than the customary entropy of formation from simple substances. The concepts of *atomic entropy of formation* from free atoms, designated as ΔSº, and the ideal entropy of formation from elements in a hypothetical state of a monatomic ideal gas at the same temp. and pressure $p = 1$ atm., designated as ΔSº, are introduced. The method is valuable for the heat of formation and free energy of formation also. The possibility of calcns. is limited mainly by the incompleteness of data characterizing transition of various compds. to the ideal gas state, *i.e.*, data on heat of vaporization, heat of sublimation, and satd. vapor pressure. The principal factor detg. ΔSº proves to be the no. of atoms in a mol. of a given compd. Structural effects and position in Mendeleev's periodic table modify the values of ΔSº. The following generalization holds: transition within a single subgroup of the periodic table from elements with a lower at. wt. to heavier elements for similar compds. is accompanied by a gradual decrease of ΔSº in abs. value. This applies to *binary salts* and *oxides*, but H is an exception to the rule. Mean values of ΔSº are already sufficient to calc. the entropy of many compds. to within 1 to 5 E.U. per mole, according to the type of c[illegible]nd. Calcd. values of ΔSº are tabulated. In many cases the entropy values so calcd. are sufficiently accurate for equil. calcns. Values of ΔSº show that the function depends upon the no. of atoms in the mol. to a greater extent than does ΔSº for cryst. substances. ΔSº proves to be much more regular than the ordinary quantity ΔS. New calcns. of entropy are given for NaBr, NaI, $Ba(OH)_2$, HgI, $AgBrO_3$, $Mn(OH)_2$, $AgIO_3$, $KBrO_3$, $CsIO_3$, $Fe(OH)_2$, $CaBrO_3$, $Zn(OH)_2$, $CaMnO_4$, $Be(OH)_2$, $Sr(OH)_2$, and KIO_3. Entropy of CdO is calcd. as 55.05 = 0.5 instead of the published value of 46.9, and for TlI 69.9 instead of 63.9.

Kenneth H. Slagle

2

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



A method for the comparative calculation of the entropy, heat, and free energy of formation of chemical compounds. II. The calculation of the free energy of formation of similar compounds and variation of entropy and free energy of similar reactions. V. Kireev (Moscow Inst. for Bldg. Engrs.). *Acta Physicochim. U.R.S.S.* 1946, 159–70; cf. *C.A.* 40, 3677⁹.—The free energy of formation can be calcd. with good precision from the heat of formation and from mean values of the at. entropy of formation for similar compds. The concept of similar reactions (e.g., dissocn. of bicarbonates of bivalent metals) is introduced. Since ΔS, and hence the difference $(\Delta H - \Delta F)$ for these reactions, depends very little upon the nature of the reactants, ΔF can be calcd. when ΔH is known by taking the mean value of $(\Delta H - \Delta F)$ or conversely. For 2 similar reactions the difference $(\Delta F_1 - \Delta F_2)$ and the equal difference $(\Delta H_1 - \Delta H_2)$ remain numerically const. at various temps.; this makes it possible to calc. the variations of ΔF and ΔH with temp. by the comparative method. Changes in sp. heat in all similar reactions, at the same temp., must be equal and vary equally with temp. All these conclusions may be extended to changes in internal energy. For org. reactions the method may, in some cases, be extended to calcns. for analogous reactions of homologs. The method is illustrated by the calcn. of values of ΔF_f for 18 halides of univalent, and sulfates of bivalent metals. Calcns. of the free energy of dissocn. of Mg and Ba sulfites were also made.

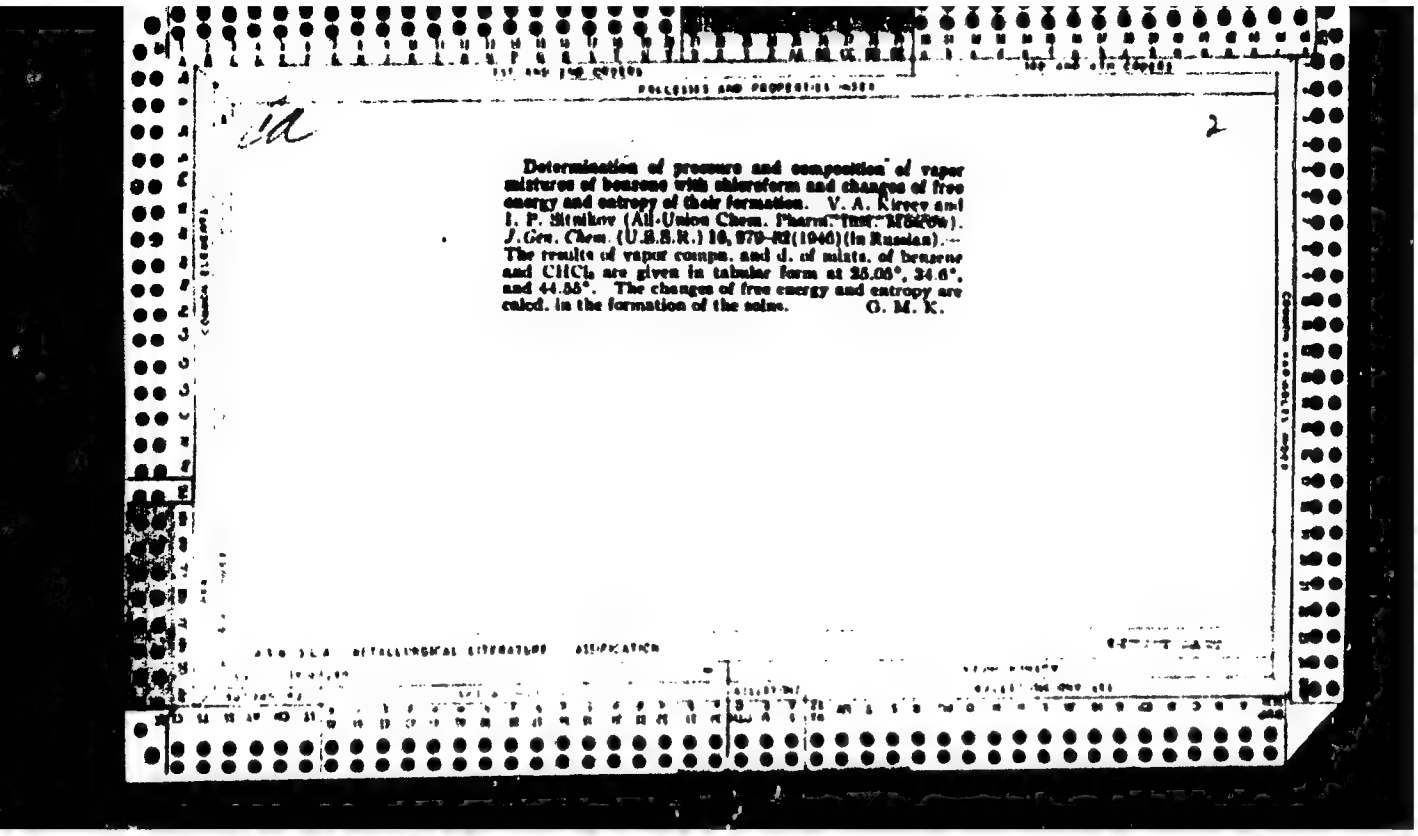
John K. Taylor

KIREYEV, V. A.

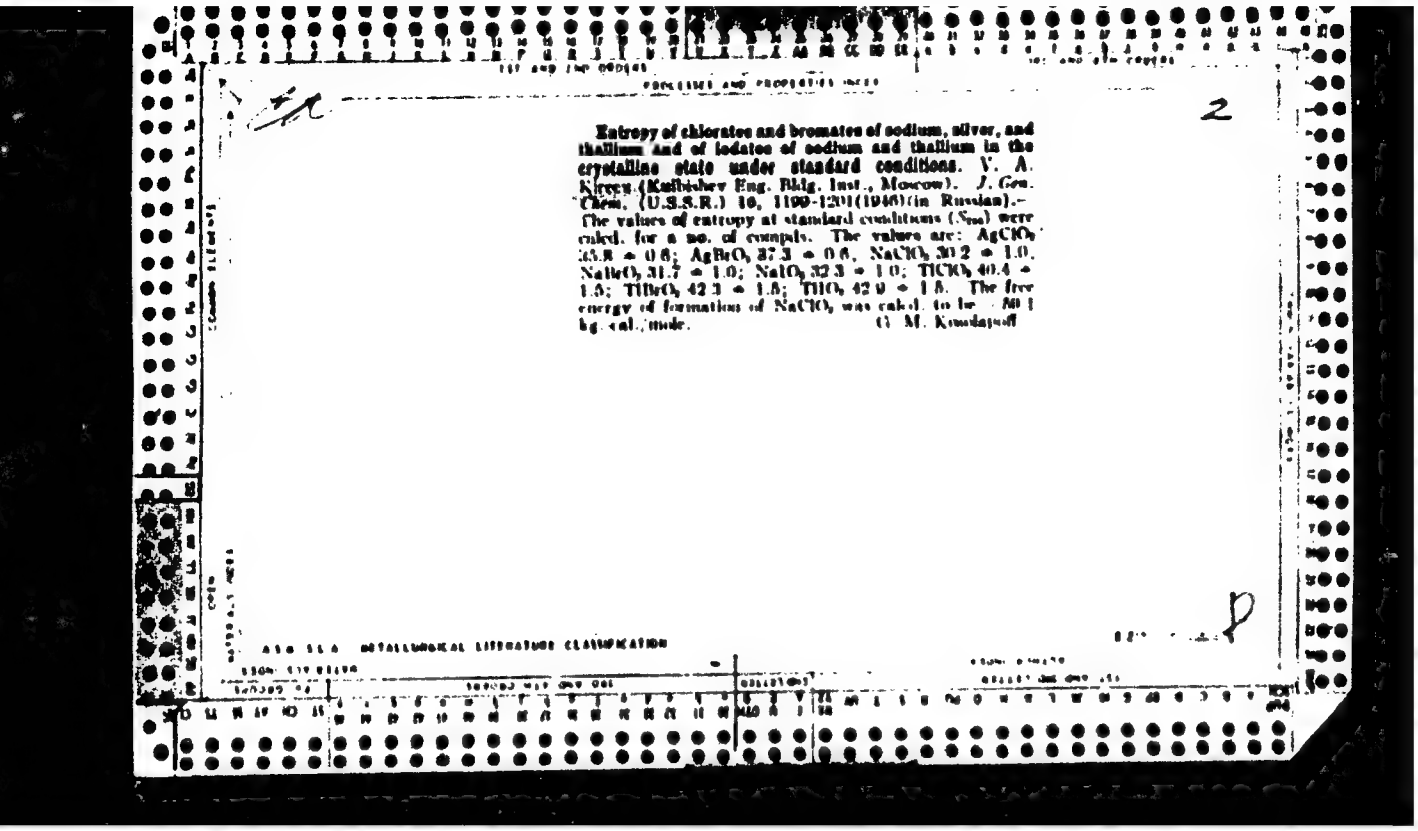
Chair of Chemistry, Ordzhonikidz Inst. Engineering-economy, Moscow, (-1946-).

"The Entropy of Chemical Elements and the Periodical Law."

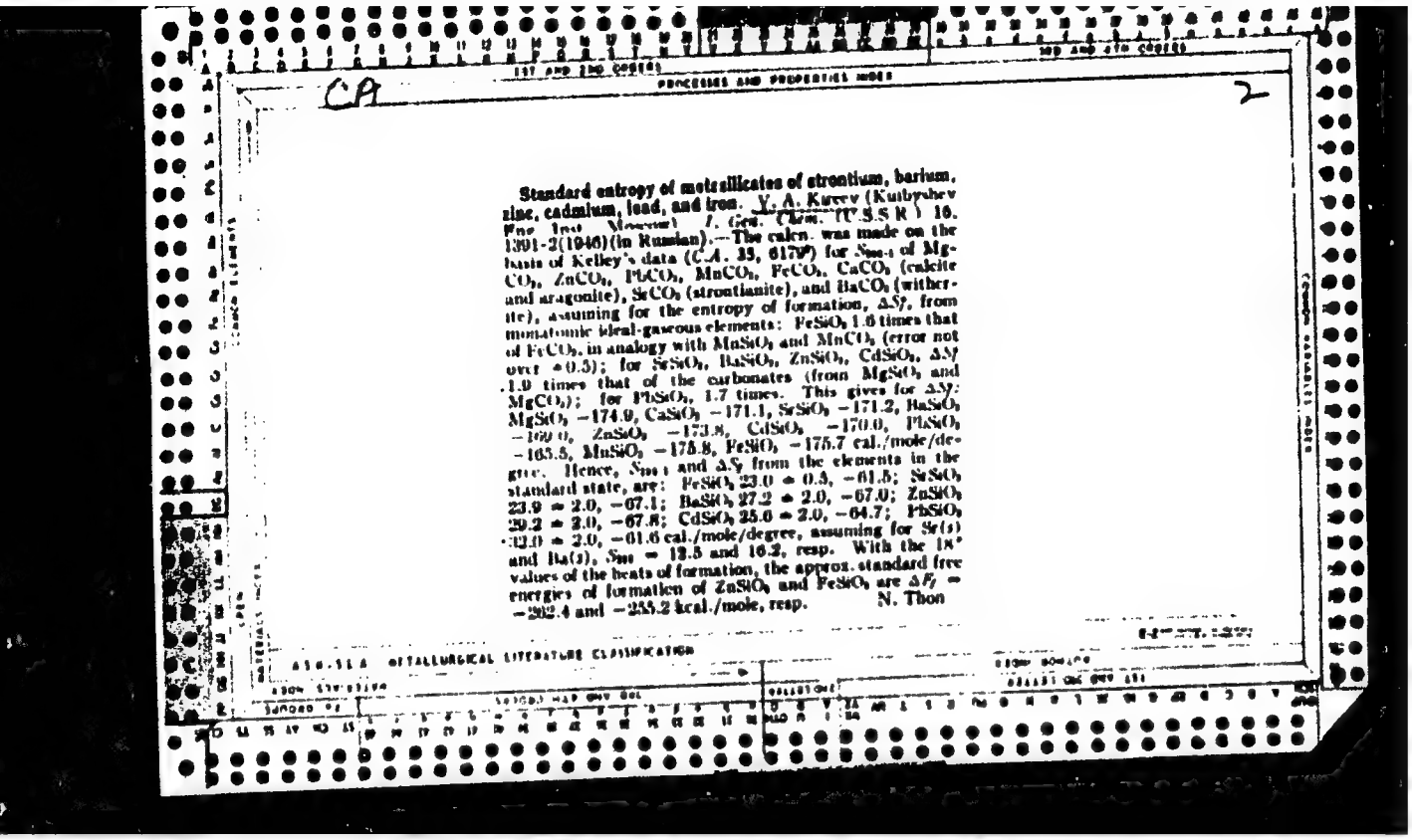
Zhur. Fiz. Khim., No. 3, 1946.



Determination of pressure and composition of vapor mixtures of benzene with chloroform and changes of free energy and entropy of their formation. V. A. Kireev and I. P. Stepanov (All-Union Chem. Pharm. Inst., Moscow). *J. Gen. Chem.* (U.S.S.R.) 16, 979–82(1946)(In Russian).—The results of vapor compn. and d. of mixts. of benzene and $CHCl_3$ are given in tabular form at 25.05°, 34.6°, and 44.55°. The changes of free energy and entropy are calcd. in the formation of the solns. G. M. K.



Entropy of chlorates and bromates of sodium, silver, and thallium and of iodates of sodium and thallium in the crystalline state under standard conditions. V. A. Kireev (Kuibishev Eng. Bldg. Inst., Moscow). *J. Gen. Chem.* (U.S.S.R.) 16, 1199-1201(1946)(in Russian).– The values of entropy at standard conditions (S_{298}) were calcd. for a no. of compds. The values are: $AgClO_3$ 35.8 ± 0.6; $AgBrO_3$ 37.3 ± 0.6; $NaClO_3$ 30.2 ± 1.0; $NaBrO_3$ 31.7 ± 1.0; $NaIO_3$ 32.3 ± 1.0; $TlClO_3$ 40.4 ± 1.5; $TlBrO_3$ 42.3 ± 1.5; $TlIO_3$ 42.9 ± 1.5. The free energy of formation of $NaClO_3$ was calcd. to be −80.1 kg.-cal./mole. G. M. Kondaleff



CA 2

Standard entropy of metasilicates of strontium, barium, zinc, cadmium, lead, and iron. V. A. Kireev (Kuibyshev Pedagog. Inst., Moscow). *J. Gen. Chem.* (U.S.S.R.) 16, 1391-2(1946)(in Russian).—The calcn. was made on the basis of Kelley's data (*C.A.* 35, 6179[9]) for $S_{298.1}$ of $MgCO_3$, $ZnCO_3$, $PbCO_3$, $MnCO_3$, $FeCO_3$, $CaCO_3$ (calcite and aragonite), $SrCO_3$ (strontianite), and $BaCO_3$ (witherite), assuming for the entropy of formation, ΔS_f, from monatomic ideal-gaseous elements: $FeSiO_3$ 1.6 times that of $FeCO_3$, in analogy with $MnSiO_3$ and $MnCO_3$ (error not over ±0.5); for $SrSiO_3$, $BaSiO_3$, $ZnSiO_3$, $CdSiO_3$, ΔS_f 1.9 times that of the carbonates (from $MgSiO_3$ and $MgCO_3$); for $PbSiO_3$, 1.7 times. This gives for ΔS_f: $MgSiO_3$ −174.9, $CaSiO_3$ −171.1, $SrSiO_3$ −171.2, $BaSiO_3$ −169.0, $ZnSiO_3$ −173.8, $CdSiO_3$ −170.0, $PbSiO_3$ −165.5, $MnSiO_3$ −178.8, $FeSiO_3$ −175.7 cal./mole/degree. Hence, $S_{298.1}$ and ΔS_f from the elements in the standard state, are: $FeSiO_3$ 23.0 ± 0.5, −61.5; $SrSiO_3$ 23.9 ± 2.0, −67.1; $BaSiO_3$ 27.2 ± 2.0, −67.0; $ZnSiO_3$ 29.2 ± 2.0, −67.8; $CdSiO_3$ 25.0 ± 2.0, −64.7; $PbSiO_3$ 32.0 ± 2.0, −61.6 cal./mole/degree, assuming for Sr(s) and Ba(s), S_{298} = 13.5 and 16.2, resp. With the 18° values of the heats of formation, the approx. standard free energies of formation of $ZnSiO_3$ and $FeSiO_3$ are ΔF_f = −292.4 and −255.2 kcal./mole, resp. N. Thon

KIREEV, V. A.

"Entropy of the Beryllium, Magnesium, Strontium, Barium and Tin Chlorides and Calcium Telluride." by V. A. Kireev (p. 1569)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1946, Volume 16, No. 10

CA 2

The entropy of chemical elements and the periodic law. V. A. Kireev (Ordzhonikidze Inst. Engineers and Economists, Moscow). *J. Phys. Chem.* (U.S.S.R.) 20, 220-43 (1946).—By interpolation or extrapolation the entropies of [illegible] perfect gases of Cu, Re, and element 87 at 25° are [illegible] to be 44.5 ± 0.6, 62.15 ± 0.01, and 43.40 ± [illegible]. [illegible] In, Cb, Sc, Y, Re, and Sr at 25° should [illegible] 13.2 ± 0.6, 8.47 ± 0.3, 8.0 ± 1.0, [illegible] 10.2 ± 1.0, and 12.5 ± 1.0. [illegible] *Acta* [illegible] *U.R.S.S.* 21, 58 [illegible] J. I. B.

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

Ca

2

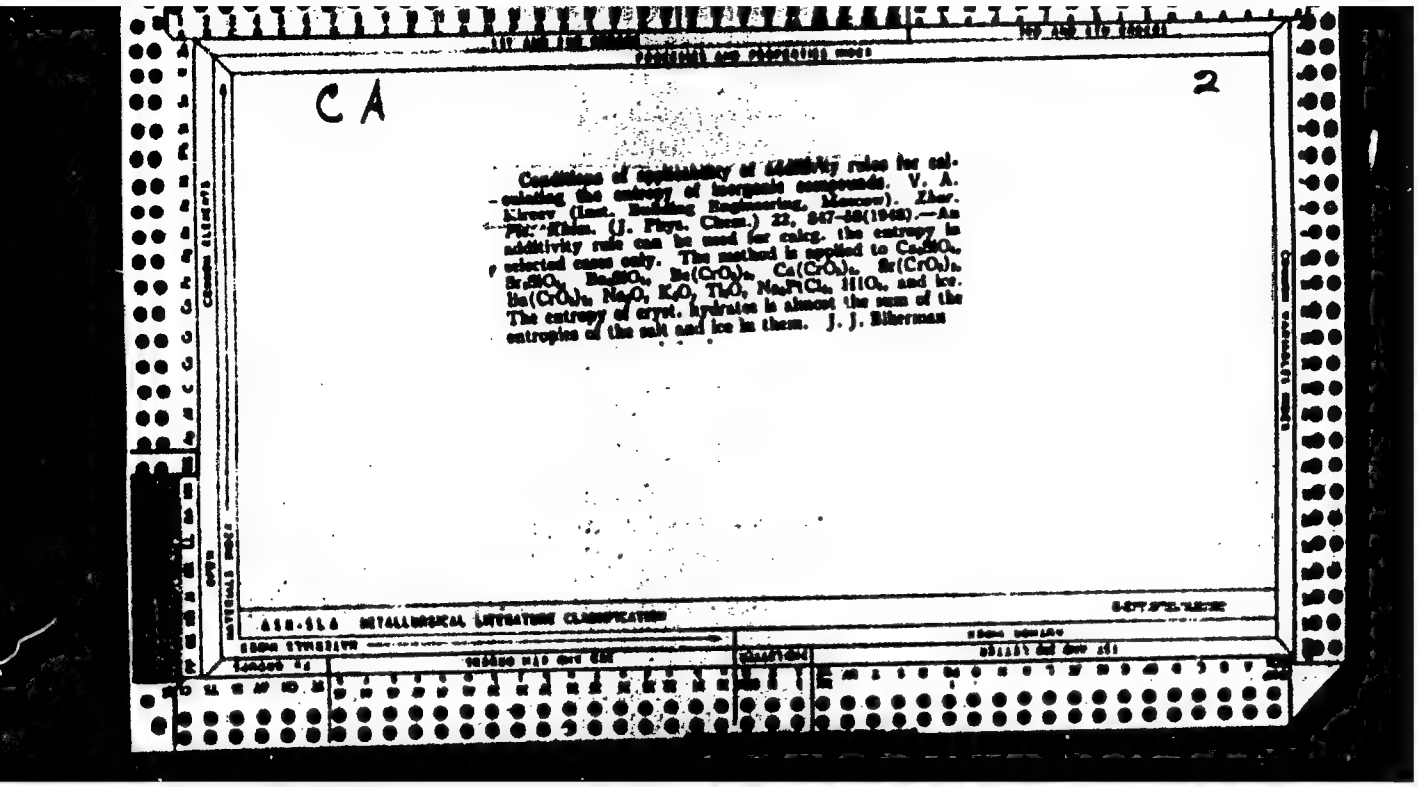
Standard entropy of chromates of sodium, potassium, ammonium, and mercury.—V. A. Kireev (Ordzhonikidze Engineering Inst., Moscow). *J. Gen. Chem.* (U.S.S.R.) 17, 1229–30(1947)(in Russian); cf. *C.A.* 41, 3008c.—On the basis of literature data of S_{298} for Na_2SO_4, K_2SO_4, Ag_2SO_4, Ag_2CrO_4, $(NH_4)_2SO_4$, and Hg_2SO_4, the standard entropies of formation ΔS° from elements in the ideal monatomic gas state were calcd. by assuming the difference of 2.8 cal./mole/degree, true for Ag_2SO_4 and Ag_2CrO_4, to hold between the sulfates and chromates of Na, K, NH_4, and Hg; the uncertainty is estd. to be ± 2.0. From the values of ΔS°: Na_2SO_4 231.2, K_2SO_4 228.6, Ag_2SO_4 228.5, Hg_2SO_4 229.4, $(NH_4)_2SO_4$ 433.9, Na_2CrO_4 229.2, K_2CrO_4 226.0, Ag_2CrO_4 226.2, Hg_2CrO_4 227.0, $(NH_4)_2CrO_4$ 431.2, the entropies of formation ΔS from elements in the natural standard state are: Na_2CrO_4 88.4, K_2CrO_4 87.4, Hg_2CrO_4 88.6, $(NH_4)_2CrO_4$ 117.22, and the entropies S_{298} = 39.2 ± 2.0, 46.3 ± 2.0, 50.2 ± 2.0, 156.7 ± 2.0, resp. With Bichowsky and Rossini's ΔH_f (*Thermochemistry of the Chemical Substances* (*C.A.* 30, 6279[4])) (at 291°K., not 298°K.), the free energies of formation ΔF are: Na_2CrO_4 −299.45, K_2CrO_4 −307.25 kcal./mole. N. Thon

ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION

KIREEV, V. A.

25387. KIREEV, V. A.
Ob usloviyakh primenimosti additivnykh skhem dlya rascheta entropii neorganicheskikh soedineniy. Zhurnal Fiz. Khimii, 1948, Vyp. 7, c. 947-58. -- Bibliogr: 14 Nazv.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948



CA

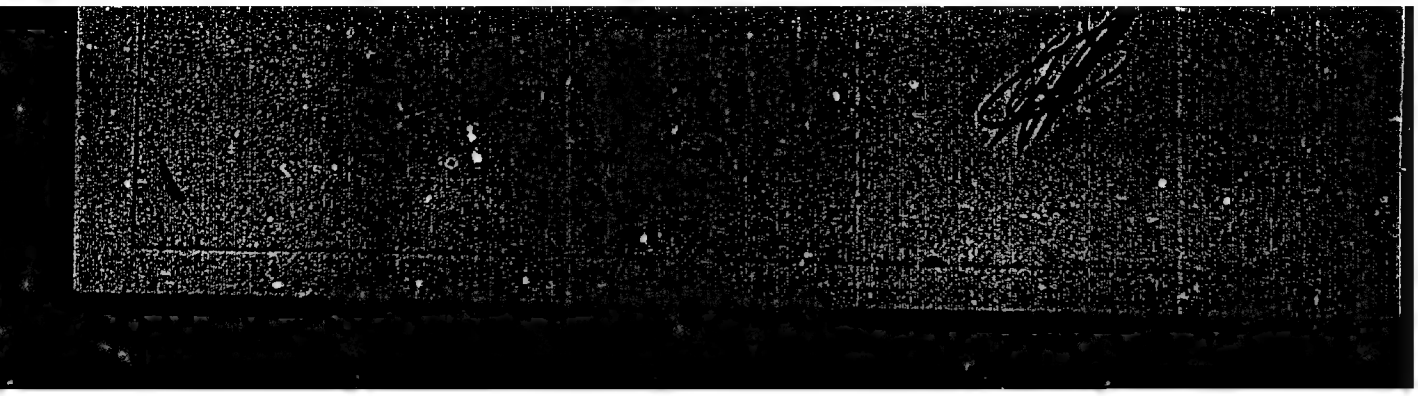
2

Conditions of applicability of additivity rules for calculating the entropy of inorganic compounds. V. A. Kireev (Inst. Building Engineering, Moscow). Zhur. Fiz. Khim. (J. Phys. Chem.) 22, 847-68(1948).—An additivity rule can be used for calcg. the entropy in selected cases only. The method is applied to $CaSiO_3$, $SrSiO_3$, $BaSiO_3$, $Be(CrO_2)_2$, $Ca(CrO_2)_2$, $Sr(CrO_2)_2$, $Ba(CrO_2)_2$, Na_2O, K_2O, ThO_2, Na_2PtCl_6, $IIIO_3$, and ice. The entropy of cryst. hydrates is almost the sum of the entropies of the salt and ice in them. J. J. Bikerman

KIREYEV, V. A.

"Chemical Thermodynamics" (Khimicheskaya Termodinamika), M. Kh. Karapet'yants, edited by N. N. Kobozev and V. A. Kireyev, Goskhimizdat, Moscow/Leningrad 1949, 528 pages, 23 rubles 20 kopeks.

SO: Uspekhi Khimii, Vol 18, #6, 1949; Vol 19, #1, 1950 (W-10083)



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000722620001-1"

KIREYEV, Valentin Aleksandrovich; MISHCHENKO, K.P., prof., retsenzent; TSVETKOVA, N.F., red.; ZAZUL'SKAYA, V.F., tekhn.red.; POGUDKIN, P.V., tekhn.red.

[Short course in physical chemistry] Kratkii kurs fizicheskoi khimii. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1950. 599 p. (MIRA 12:4)
(Chemistry, Physical and theoretical)

KIREYEV, V. A.

Science

Course in physical chemistry; Dopushcheno v kachestve uchebnika dlia nekhimicheskikh vuzov. Moskva, Gos. nauchno-tekhn. izd-vokhim. litry, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED.

KIREYEV, V.A.

Chem

3
(1)

Chem Abs v 48
1-25-54
General & Physical
Chemistry

Work of D. I. Mendeleev on the equation of state of an ideal gas. V. A. Kireev. *Uspekhi Khim.* 20, 132–4(1951). d —In 1874 M. derived a form of an ideal-gas equation, formulated as $Mp = 6200s(273 + t)$, where s is the wt. of 1 ml. of gas at $t°$ and pressure p in mm. of Hg, and M = mol. wt. The equation permits the simultaneous use of the simpler individual gas laws. The Clapeyron equation derived in 1834 made use of Boyle's and Gay-Lussac's laws only. G. M. Kosolapoff

8-31-54
RJP

~~F[illegible]~~ KIREYEV, V. A.

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BOOK

Call No.: AF476498

Authors: FEDULOV, I. F., KIREEV, V. A.

Full Title: TEXTBOOK OF PHYSICAL CHEMISTRY 3rd ed., rev. and suppl.

Transliterated Title: Uchebnik fizicheskoy khimii, 3-ye izd., pererab. i dop.

PUBLISHING DATA

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House of Chemical Literature ("Goskhimizdat")

Date: 1952 No. pp.: 440 No. of copies: 25,000

Editorial Staff: None

PURPOSE: A textbook for technical schools of the Ministry of Chemical Industry which also may serve as a manual of physical chemistry for students of technical schools not specializing in chemistry.

TEXT DATA

Coverage: This textbook discusses briefly the following topics: the most important properties of substances in gaseous, liquid and crystallized state; the structure of atoms and molecules; the laws of thermodynamics and their application to chemical processes (thermochemistry, equilibrium in homogeneous and heterogeneous systems); the phase-law; the properties of solutions; electrochemistry; the study of the rate of chemical reactions; catalysis; and the properties of substances in the

CA

2

Liquid-vapor phase equilibrium in some binary systems. V. A. Kireev, Yu. N. Sheinker, and E. M. Perveeva (S. Ordzhonikidze Chem. Pharm. Inst., Moscow). *Zhur. Fiz. Khim.* 26, 252-7(1952).—The phase equil. between liquid and vapor, at 760 mm. Hg, was investigated in a new type of app. resembling that of Gillespie (*C.A.* 40, 3961[1]). The systems investigated were toluene-cyclohexanone (I), toluene-iso-BuOH (II) and toluene-iso-PrOH (III). The figures in each bracket give, resp., the b.p. of the mixt., the compn. of the vapor in mol. % of toluene, and the compn. of the liquid (same units). For I: (110.4, 100.0, 100.0) (116.0, 94.2, 80.2) (120.2, 88.4, 66.0) (128.7, 75.6, 47.8) (131.2, 65.1, 35.6) (135.0, 57.1, 27.7) (140.3, 48.3, 20.9) (144.4, 35.1, 13.5) (149.5, 18.9, 8.2) (154.6, 0.0, 0.0). For II: (110.4, 100.0, 100.0) (107.2, 87.0, 66.5) (104.7, 77.3, 59.7) (103.8, 73.6, 57.0) (102.3, 71.2, 54.4) (102.5, 67.4, 50.3) (101.9, 64.1, 76.2) (101.4, 59.8, 62.2) (100.9, 57.0, 53.8) (100.6, 54.4, 48.8) (100.5, 53.6, 45.0) (100.3, 48.0, 44.1) (101.1, 44.2, 38.6) (101.2, 42.1, 33.3) (101.7, 36.3, 25.3) (101.9, 32.4, 21.1) (102.8, 26.7, 14.0) (103.6, 21.4, 11.4) (106.2, 12.1, 6.6) (108.0, 0.0, 0.0). For III: (110.4, 100.0, 100.0) (104.6, 92.1, 97.0) (96.6, 69.2, 92.2) (94.4, 56.6, 89.7) (91.0, 49.8, 86.1) (88.5, 43.8, 79.7) (86.6, 40.2, 74.4) (85.4, 37.8, 68.8) (84.0, 33.7, 60.3) (83.2, 31.0, 53.1) (82.2, 27.9, 42.6) (81.8, 24.8, 32.4) (81.5, 23.5, 29.6) (81.5, 21.9, 25.8) (81.4, 19.2, 22.0) (81.2, 17.6, 18.8) (81.2, 16.6, 14.2) (81.6, 8.2, 6.7) (82.3, 0.0, 0.0). Thus, systems II and III are azeotropic.

Michel Boudart

FEDULOV, I.F.; KIREYEV, V.A. [authors]; BALEZIN, S.A., professor [reviewer].

For thorough study of the theoretical bases of chemistry. ("Textbook of physical chemistry for technical schools." I.F.Fedulov, V.A.Kireev. Reviewed by S.A.Balezin). Khim.v shkole no.5:75-76 S-O '53. (MLRA 6:9)
(Chemistry, Physical and theoretical) (Fedulov, I.F.) (Kireev, V.A.)

TATEVSKIY, V.M.; KARAPET'YANTS, M.Kh. [authors]; TILICHEYEV, M.D. [redaktor]; KIREYEV, V.A.[reviewer].

"Physicochemical properties of individual hydrocarbons." Edited by M.D. Tilicheev. Reviewed by V.A.Kireev. Zhur.fiz.khim. 27 no.6:939-940 Je '53.

(MLRA 6:7)
(Hydrocarbons)

KIREYEV, V. A.

AID P - 1308

Subject : USSR/Chemistry

Card 1/1 Pub. 119 - 2/5

Author : Kireyev, V. A. (Moscow)

Title : Chemical reactivity and thermodynamic properties of some hydrocarbons. Reactions of isomerization and of thermal decomposition

Periodical : Usp. khim., 23, no. 8, 921-942, 1954

Abstract : Entropy and its components are reviewed. Calculation of chemical equilibria and determination of reactivity are discussed. 14 tables, 11 diagrams, 20 references (19 Russian: 1945-1954).

Institution : None

Submitted : No date

KIREYEV, V.A.

USSR/Chemistry - Reaction processes

Card 1/1 Pub. 147 - 27/27

Authors : Kireyev, V.A.

Title : The method of monotypical (analogous) reactions and its application in organic chemistry

Periodical : Zhur. fiz. khim. 28/2, 372-376, Feb 1954

Abstract : Experimental data are presented showing that the monotypical reaction method is well applicable to reactions the process of which is accompanied by a practically uniform change in entropy. This takes place when the following two conditions are satisfactory : 1) when the changes in the number of moles in the gaseous products in both contrasting reactions are identical, and 2) when the effect of structural characteristics on the change in entropy is practically analogous. The method of monotypical (analogous) reactions can also be useful for the estimation of thermal effects. Four references: 2-USSR and 2-USA (1945-1951). Tables.

Institution : The V.V. Kuybyshev Structural Engineering Institute, Moscow

Submitted : October 14, 1953

KIREYEV, V. A.
USSR/Chemistry
Card 1/1

Authors : Kireyev, V. A.

Title : Thermal dependence of equilibrium constants of analogous (monotypical) reactions

Periodical : Zhur. Fiz. Khim. 28, Ed. 3, 568-575, March 1954

Abstract : Described is a method for the calculation of the thermal dependence of equilibrium constants of analogous (monotypical) reactions. In expressing the equilibrium constants through the activity the equilibrium given in equation (4) is a perfectly strict thermodynamic ratio which does not depend upon any partial assumptions and is applicable to any pair of reactions (not only monotypical), and to various conditions of their behavior (at uniform temperature). A comparison of this new method with the previously described by the author shows that the latter has a broader application but requires more basic data in its application. Ten references. Tables, graphs.

Institution : The V. V. Kuybyshev Engineering Structural Institute, Moscow, USSR

Submitted : Nov. 19, 1953

USSR/Physics - Physical chemistry

Card 1/1 : Pub. 147 - 25/27

Authors : Kireyev, V. A.

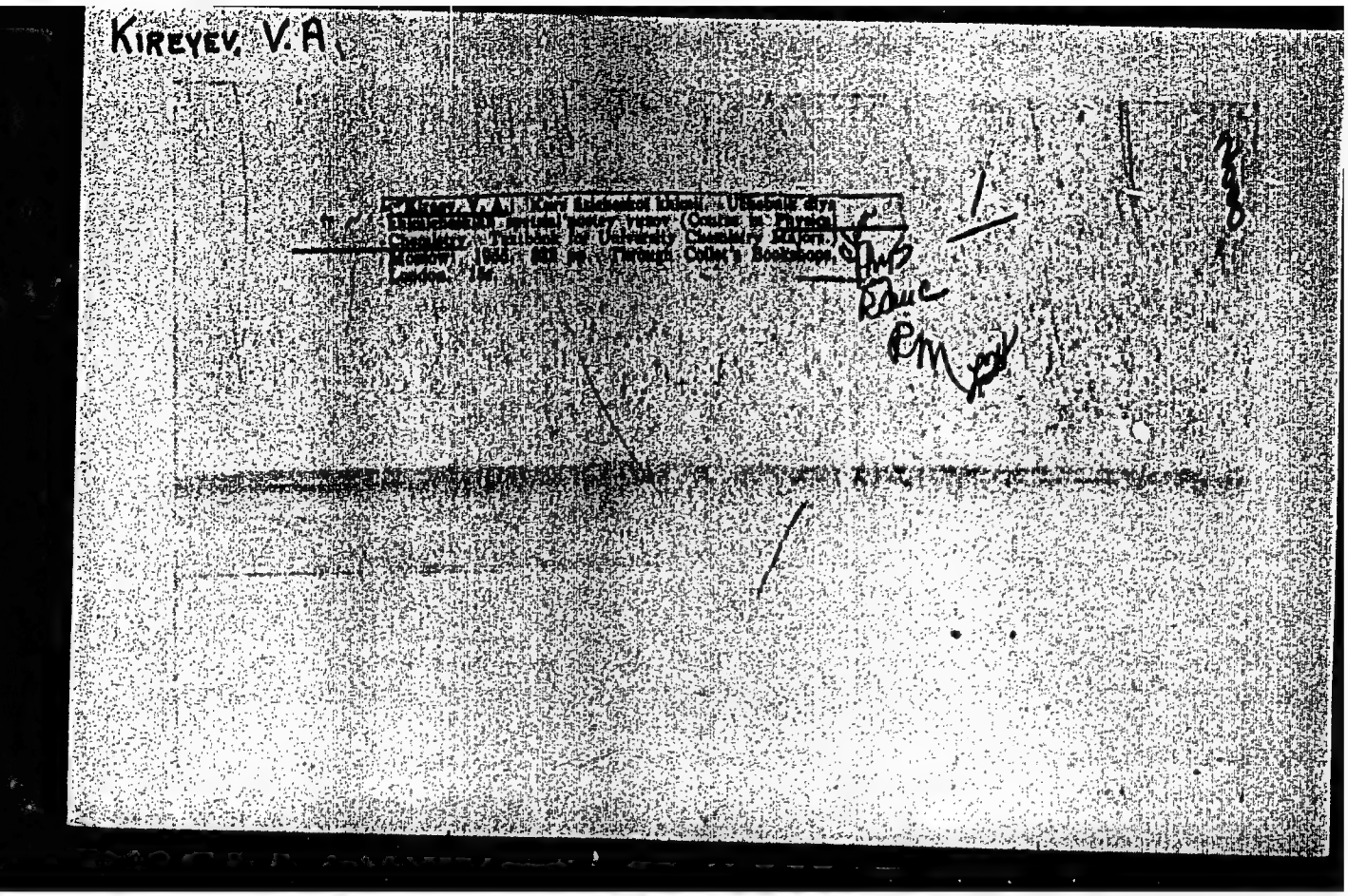
Title : Entropy and its application in chemical thermodynamics

Periodical : Zhur. fiz. khim. 28/12, 2262-2264, Dec 1954

Abstract : The applicability of entropy in chemical thermodynamics is explained. Entropy is considered as a thermodynamic function which reflects the total effect of the movement of particles constituting a certain system. Entropy as well as internal energy of a substance depend upon all structural characteristics of the substances and the conditions of its existence. The second thermodynamic law makes it possible to express the effect of all these properties on the equilibrium position in a given chemical process. The concept of the second thermodynamic law is elucidated. Table.

Institution : The V. V. Kuybyshev Structural Engineering Institute, Moscow

Submitted : June 30, 1954



5(4) PHASE I BOOK EXPLOITATION SOV/2140

Kireyev, Valentin Aleksandrovich

Kratkiy kurs fizicheskoy khimii (A Short Course in Physical Chemistry) Moscow, Goskhimizdat, 1959. 599 p. Errata slip inserted. 25,000 copies printed.

Ed.: N.F. Tsvetkova; Tech. Eds.: V.F. Zazul'skaya, and P.V. Pogudkin

PURPOSE: The book is intended to serve as a textbook for vtuz students not specializing in chemistry. It can also serve as a reference book for scientists, engineers and technicians as well as for teachers of physical chemistry and related subjects.

COVERAGE: The book is based on the material used in the text, Kurs fizicheskoy khimii (Course in Physical Chemistry) by V.A. Kireyev, (1956) which was intended as a textbook for students of chemical vuzes. The text was abbreviated and revised. The following chapters have been included in the book: "Colloidal state" discussing lyophobic colloids chiefly; "The Tagged Atom Method and Chemical

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Effect of Radiations" and "High Polymers and Plastic Materials". The latter chapter discusses the inner structure and the properties of high polymers (plastics) essential to their uses. The author thanks Professor K.P. Mishchenko for reviewing the manu-

sor G.L. Slonimskiy, and Docent S.L. Sosin for their comments on the chapter discussing high polymers and plastic materials. There are 153 references: 117 Soviet, 26 English, and 10 German.

TABLE OF CONTENTS:

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5.4200

S/076/60/034/05/01/038
B010/B002

AUTHOR: Kireyev, V. A.

TITLE: Thermodynamics of Chemical Equilibria in Similar Reactions

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol.34, No.5, pp. 945-956

TEXT: The author discusses the methods of determining chemical equilibrium, which are based on the analogy of the chemical properties of similar substances, and which use the data of the equilibrium of a known reaction for calculating the data of an analogous but unknown reaction. Of the various methods used to compare and determine the chemical equilibria of similar reactions, the author discusses three thermodynamic methods with different prerequisites. In the first two methods two reactions are compared at the same temperature, whereas in the third method equilibrium constants of equal values are compared. The first method is based on an equation (1) developed by the author in a previous paper (Ref. 1). In this equation, the equilibrium constants K_X and K_Y of two reactions X and Y at equal temperatures are related to each other as well as the changes in enthalpy ΔH°_X and ΔH°_Y and in entropy ΔS°_X and ΔS°_Y under standard conditions. The periodic system forms the basis of a comparison between inorganic compounds, whereas homologous series are used for organic compounds. As shown by the

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author in Ref. 1, equation (1) for constant temperatures is transformed into equation (2), which describes the linear dependence between log K_X and log K_Y. The accuracy of the results obtained depends on the degree of similarity of the reactions compared, as well as on the accuracy of the initial data. Equation (2) yields, however, exact results also for slightly dissimilar reactions. To illustrate the applicability of equation (2), the following results are given: Table 1 contains calculated data concerning the equilibrium of hydrogenation of ethyl benzene to ethyl cyclohexane according to the properties of these substances at 25° and the equilibrium of the analogous hydrogenation of toluene to methyl cyclohexane. Table 2 gives a comparison between calculations of the equilibrium of dissociation of gaseous SrO, BaO, and MgO according to data on the analogous dissociation of CaO and the thermodynamic properties of these substances (cf. the paper by I. V. Veyts, L. V. Gurvich, and N. P. Rtishcheva (Ref. 9)). Table 3 gives the results of calculations of the equilibrium constants of thermal dissociation of DBr and TBr according to the analogous dissociation of HBr. Table 4 lists data on the equilibrium of hydrogenation of some alkyl benzenes to the corresponding alkyl cyclohexanes according to the analogous hydrogenation of benzene. Table 5 shows the separation of ethylene from normal alkanes. Table 6 contains the results of calculations of the formation of some crystalline dioxides from simple substances at 1,000°K. The

second method described is based on the equation

$$\ln K_Y = \ln K_X + \frac{\Delta H_X^0 - \Delta H_Y^0}{RT} - \frac{\Delta S_X^0 - \Delta S_Y^0}{R} \quad (12).$$

For practical purposes it is necessary that the difference $\Delta H_X^0 - \Delta H_Y^0$ and $\Delta S_Y^0 - \Delta S_X^0$ does not change with temperature. This equation is less accurate than equation (2). Under certain conditions it is possible to simplify (12). By means of the third method the temperature is determined which corresponds to equal values of the reaction rate constants. Here, $K_X = K_Y$ and $d\ln K_X = d\ln K_Y$ are assumed, and one obtains the equation

$$\frac{dT_Y}{T_Y^2} = \frac{H_X}{H_Y} \cdot \frac{dT_X}{T_X^2} \quad (14).$$

The latter can be integrated on three different assumptions. The use of this method is illustrated by Table 7 (enthalpy of dissociation of gaseous CaO, SrO, and BaO to free atoms at equal reaction rate constants), and Table 8 (temperatures corresponding to equal values of reaction rate constants in the dissociation of CaO, SrO, and BaO). The author concludes

Thermodynamics of Chemical Equilibria in Similar Reactions

S/076/60/034/05/01/038
B010/B002

that the results furnished by the above-described methods are practically as accurate as direct experimental determinations. Approximate values are obtained both when only few initial data are available and in the case of rather dissimilar reactions. A. F. Kapustinskiy, K. B. Yatsimirskiy, and M. Kh. Karapet'yants are mentioned in the text. There are 2 figures, 8 tables, and 21 references: 13 Soviet, 5 American, 1 German, 1 French, and 1 Czech.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut im. V. V. Kuybysheva
(Moscow Institute of Civil Engineering imeni V. V. Kuybyshev)

SUBMITTED: December 29, 1959

Card 4/4

KARAPET'YANTS, Mikhail Khristoforovich; CHEN GUANG-YUE [Ch'êng Kuang-yüeh]; KIREYEV, V.A., prof., retsenzent; L'VOVA, L.A., vedushchiy red.; MUKHINA, E.A., tekhn. red.

[Boiling point and pressure of hydrocarbon saturated vapors] Temperatura kipeniia i davlenie nasyshchennogo para uglevodorodov. Moskva, Gos.nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 241 p. (MIRA 14:6)

(Hydrocarbons)

KIREYEV, V.A.

Thermodynamics of single-type chemical reactions and single-type compounds. Zhur. fiz. khim. 35 no.7:1393-1405 Jl '61. (MIRA 14:7)

1. Moskovskiy inzhenerno-stroitel'nyy institut im. V.V. Kuybysheva.

(Chemical reacion—Conditions and laws)
(Thermochemistry)

KIREYEV, Valentin Aleksandrovich; TSVETKOVA, N.F., red.; ZAZUL'SKAYA, V.F., tekhn. red.

[Concise course in physical chemistry]Kratkii kurs fizicheskoi khimii. Izd.2., ispr. i dop. Moskva, Goskhimizdat, 1962. 647 p. (MIRA 15:11)

(Chemistry, Physical and theoretical)

KIREYEV, V.A

Thermodynamics of chemical reactions of the same type chemical reactions. Zhur. fiz. khim. 36 no.11:2547-2550 N'62.
(MIRA 17:5)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni Kuybysheva.

KIREYEV, V.A.

Atomic entropy of the formation of inorganic substances at high temperatures. Izv.vys.ucheb.zav.,khim.i khim.tekh. 6 no.5:751-753 '63. (MIRA 16:12)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V.Kuybysheva, kafedra obshchey khimii.

LIBERMAN, G.V.; KIREYEV, V.A.

Interaction of tricalcium aluminate with water in the presence of sodium and potassium sulfates at elevated temperatures. Izv.vys. ucheb.zav.; khim. i khim. tekh. 6 no.6:896-900 '63. (MIRA 17:4)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni Kuybysheva, kafedra obshchey khimii.

SOKOLOV, M.I.; [illegible], N.N.; ZEVYAKIN, [illegible]

Vacuum slide-valves. Prib. i tekh. eksp. no.6:137-140 N-D '63. (MIRA 17:6)

KIREYEV, V.A.

Effect of temperature on entropy change in chemical reactions.
Zhur.ob.khim. 33 no.3:724-728 Mr '63. (MIRA 16:3)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V. Kuybysheva.

(Chemical reactions)
(Entropy)

KIREYEV, V.A.

Influence of temperature on thermal effects of chemical reactions. Zhur. ob. khim. 33 no.5:1391-1396 My '63.
(MIRA 16:6)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni Kuybysheva.
(Thermochemistry)

S/076/63/037/001/023/029
B101/B186

AUTHOR: Kireyev, V. A.

TITLE: Effect of temperature on the atomic entropies of formation of inorganic substances

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 211 - 214

TEXT: The atomic entropy of formation, ΔS^a_{form} is defined as the change of entropy in the formation of one mole of a substance from free atoms in the normal state at constant temperature. $\Delta S^o_X - \Delta S^o_Y = c$ holds for monotypic substances, where c remains nearly unchanged over a wide temperature range, so that the known ΔS^o_X for the one substance can be used to approximate ΔS^o_Y for the other. The high-temperature component $S^o_T - S^o_{298}$ of the entropy can be calculated from $\Delta S^a_{Y,T} - \Delta S^a_{Y,298} = \Delta S^a_{X,T} - \Delta S^a_{X,298}$ if the data of absolute entropy for the two monotypic substances are unknown. Based on thermodynamic data found by K. K. Kelley, A. D. Mah (Bureau of Mines Report

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Effect of temperature on the...

of Investig. 5490, Washington, 1959; Bureau of Mines Bull. 584, Washington, 1960) and D. R. Stull, G. S. Sinke (Thermodynamic Properties of the Elements, Washington, 1956), ΔS^a_{form} was calculated for calcium, strontium, and barium metatitanates and metasilicates, and for $FeTiO_3$ and $MnSiO_3$, and the deviations of c from the constant value were discussed. These deviations are explained by different degrees of monotypic characteristics or different crystal structures. The c of gaseous compounds therefore shows better constancy which is confirmed by ΔS^a_{form} of CO, N_2, NO, OH, and H_2. There are 2 tables.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut im. V. V. Kuybysheva (Moscow Construction Engineering Institute imeni V. V. Kuybyshev)

SUBMITTED: April 12, 1962

Card 2/2

KIREYEV, V.A.

Method of double comparison of reactions and compounds of the same type. Zhur.fiz.khim. 37 no.2:452-456 F '63. (MIRA 16:5)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V.Kuybysheva.
(Chemical compounds—Thermodynamic properties)
(Chemical reaction—Conditions and laws)

L 12870-63 EPT(a)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pr-4 WW/JD/JG
ACCESSION NR: AP3002940 S/0076/63/037/006/1381/1384

AUTHOR: Kireyev, V. A.

TITLE: Thermodynamic parameters of chemical reactions and phase transformations under conditions corresponding to identical equilibrium constants

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 6, 1963, 1381-1384

TOPIC TAGS: heat effect, entropy, phase transformation, gaseous MgO formation, CaO, SrO, BaO, hydrogenation, alkene, alkane, equilibrium constant, chemical reaction, thermodynamic parameter

ABSTRACT: A direct relationship, rather exact for a specific reaction range, was shown between the heat-effect and the entropy changes of two chemical reactions or phase transitions if the reactions or transitions are subjected to conditions producing identical equilibrium constants. Hence in the thermodynamic relationship R ln K sub a = Delta H degrees/T + Delta S degrees, when dealing with monotypic reactions or transitions, it is possible to determine the parameters Delta H or Delta S of a given reaction from experimental data for a second reaction, or even to calculate the equilibrium constant K sub a for a given reaction from data for an analogous monotypic reaction. Data given for several

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L 12870-63
ACCESSION NR: AP3002940

groups of monotypic reactions (formation of gaseous MgO, CaO, SrO, and BeO from free element atoms; hydrogenation of normal C sub 2 - C sub 8 alkenes to alkanes; addition of ethylene to form C sub 2 - C sub 6 alkanes; obtaining O sub 2, N sub 2 and H sub 2 from free atoms) indicated Delta H degrees/T, and consequently Delta S, differed within a very small limit for a given value of the equilibrium constant. Corrections are given for data given in a previous article by V. A. Kireyev (Zh. fiz. khimii, vol. 34, 945, 1960). Orig. art. has: 2 tables and 7 equations.

ASSOCIATION: Moskovskiy inzhenerno-stroitel'nyy institut im. V. V. Kuyby*sheva (Moscow Institute of Civil Engineering)

SUBMITTED: 05Jul62 DATE ACQ: 16Jul63 ENCL: 00

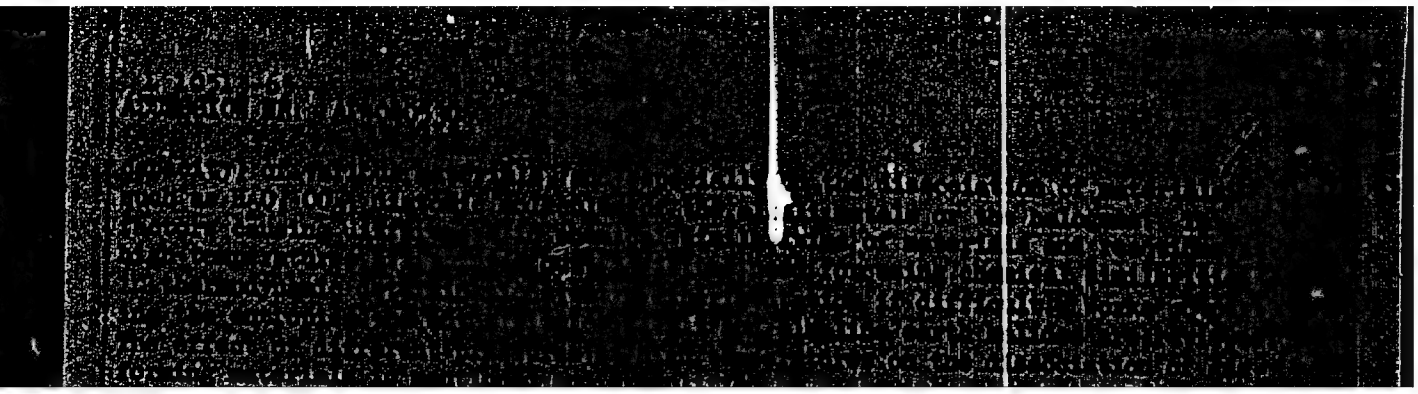
SUB CODE: 00 NO REF SOV: 003 OTHER: 002

Card 2/2

KIREYEV, V.A.; GORBUSHINA, V.B.

Relation between thermal effects of inorganic reactions taking place at the same temperatures. Izv.vys.ucheb.zav.;khim. i khim. tekh. 7 no. 1:29-33 '64. (MIRA 17:5)

1. Moskovskiy inzhenerno-stroitel'nyy institut im. V.V. Kuybysheva, kafedra obshchey khimii.



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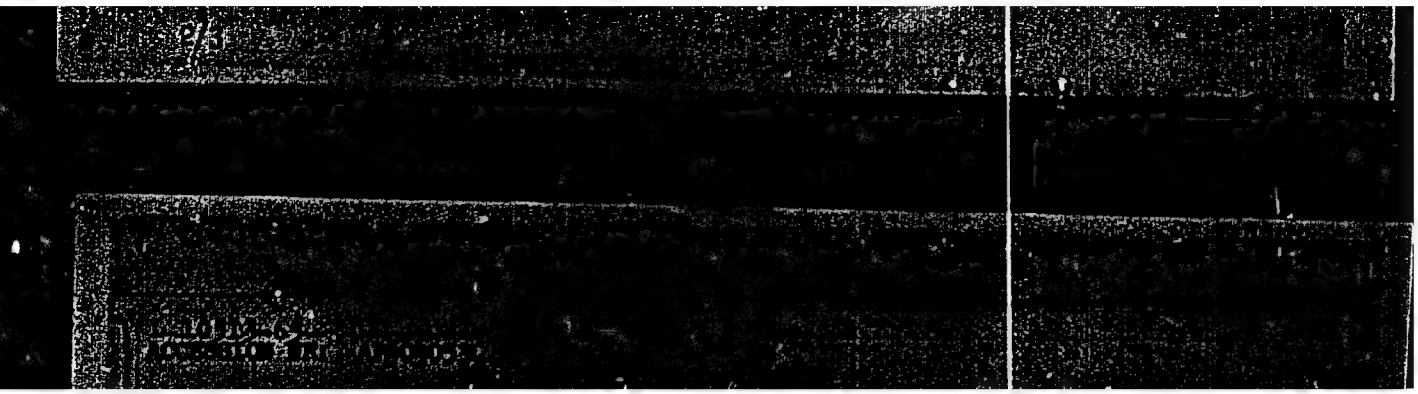


LIBERMAN, G.V.; KIREYEV, V.A.

Interaction of tricalcium aluminate with water in the presence of the chlorides of calcium, sodium, and potassium at elevated temperatures. Zhur.prikl.khim. 37 no.1:194-196 Ja '64. (MIRA 17:2)

LIBERMAN, G.V.; KIREYEV, V.A.

Interaction of tricalcium silicate with aqueous solutions of some chlorides and sulfates at elevated temperatures. Zhur. prikl. khim. 37 no.2:450-453 F '64. (MIRA 17:9)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni Kuybysheva.

KIRSANOV, V.A.; GORBUSHINA, V.D.

Effect of temperature on the rate of formation of organic compounds. Zhur.prikl.khim. 37 no.7:1642-1644 Jl '64.
(MIRA 18:4)

KIRSYEV, V.A.

Acid-base properties of oxides. Zhur.fiz.khim. [illegible] As '64. (MIRA 18:1)

1. Moskovskiy inzhenerno-stroitel'nyy institut im. V.V.Kuybysheva.

KIREYEV, V.A.

Corresponding temperatures of chemical reactions. Zhur. ob. khim. 35 no.3:409-414 Mr '65. (MIRA 18:4)

1. Moskovskiy inzhenerno-stroitel'nyy institut im. V.V. Kuybyasheva.

KIREYEV, V.A.

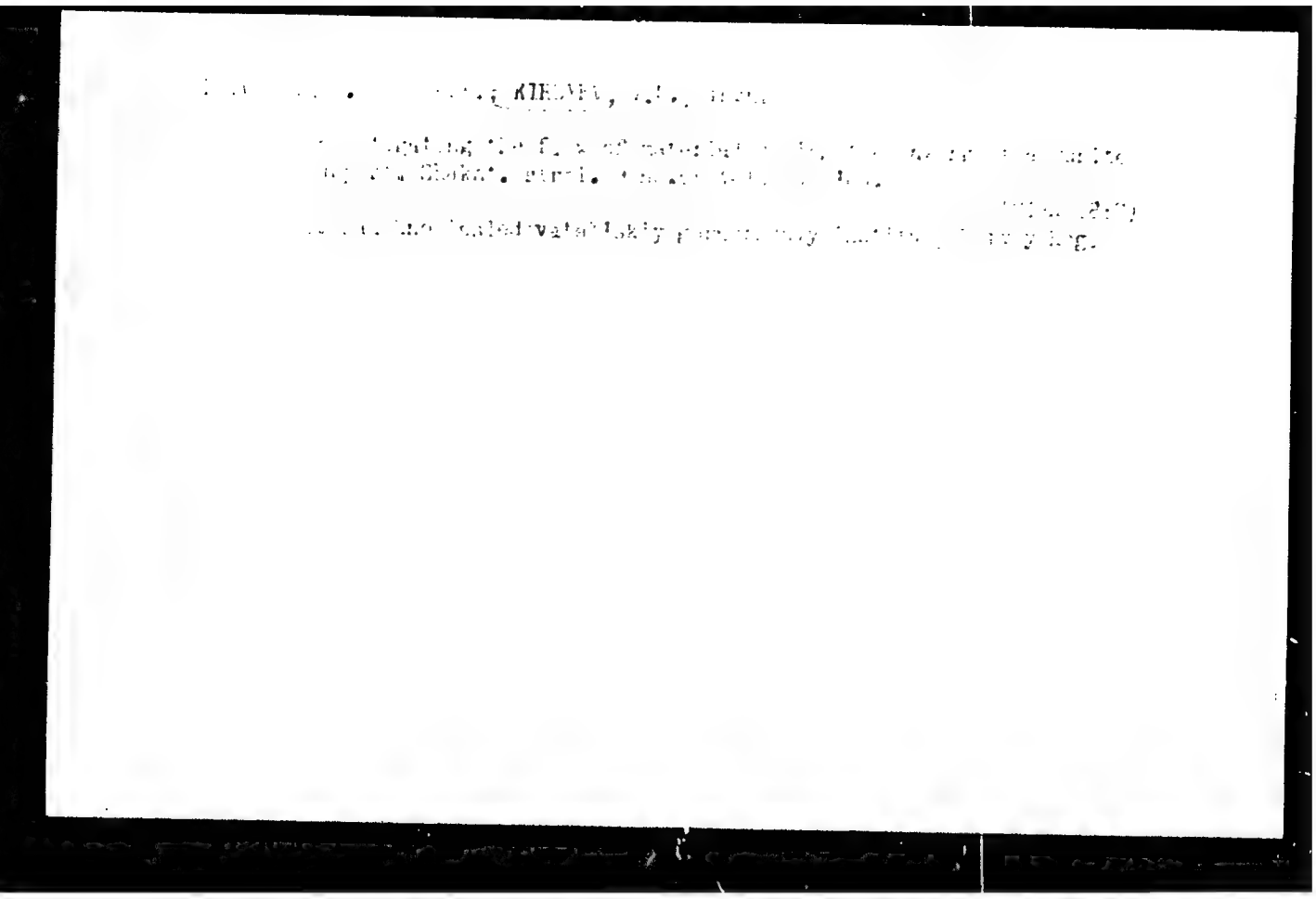
Effect of temperature on the heat effects of chemical reactions and phase transitions. Zhur. fiz. khim. 39 no.2:463-466 F '65. (MIRA 18:4)

1. Moskovskiy inzhenerno-stroitel'nyy institut imeni Kuybysheva.

CHERFAS, M.D., starshiy nauchnyy sotrudnik; KIREYEV, V.A.; KAPUSTIN, S.A.

Method of determining vertebral torsion in the initial forms of scoliosis. Ortop., travm. i protez. 26 no.4:30-33 Ap '65. (MIRA 18:12)

1. Iz Saratovskogo instituta travmatologii i ortopedii (dir. - dotsent Ya.N.Rodin). Adres avtorov: Saratov, ul. Chernyshevskogo, dom 148, Institut travmatologii i ortopedii.



KIREYEV, V.D.

Periodic aeration of rocks and its practical value. Izv. AN SSSR. Ser.geofiz. no.1:152-155 Ja '63. (MIRA 16:2)
(Mine ventilation)

VERBITSKIY, V.M., inzh.; ZITSER, I.S., inzh.; KIREYEV, V.D., inzh.; KOROLEV, I. M., inzh.

Stand for testing the performance of mine supports. Shakht. stroi. 8 no.8:17 Ag '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy Rog.

KIREYEV, V.F.

New developments in the techniques of carrot and tomato culture.
Kons.i ov.prom. 17 no.10:23-24 O '62. (MIRA 15:9)

1. Krasnodarskiy vitaminnyy kombinat.
(Carrots) (Tomatoes)

KIREYEV, V.F.

The TKU-0,9 universal trench digger. Trakt. i sel'khozmash. 33 no.1:34-35 Ja '63. (MIRA 16:3)

1. TSentral'no-Chernozemnaya mashinoispytatel'naya stantsiya.
(Trench digging machine)

KIREYEV, V. F.

KIREYEV, V. F.-- "Methods of Measuring the Curvature of Oil Wells." Min Higher Education USSR. Azerbaydzhan Order of Labor Red Banner Industrial Inst imeni M. Azizbekov, Baku, 1956. (Dissertation for the Degree of Candidate in Technical Sciences)

No 1

SO: Knizhnaya Letopis', 1956, pp 102-122, 124

KIREYEV, V.F.

Effect of the lithology of the section and of formation factors of layers on the direction and character of well deflection. Trudy Azerb. ind. inst. no.16:49-54 '57. (MIRA 11:9)
(Oil well drilling)

KIREYEV, V.F.

Analyzing the theoretical possibilities of measuring well deflection. Trudy Azerb. ind. inst. no.17:50-57 '57. (MIRA 11:9)
(Boring)

Kireyev, V. F.

AGAMALIYEV, G.M.; KIREYEV, V.F.

Using applied geophysical data to note the change in thickness and lithological facies of the discontinuity in the pay formation in the southern Karadag structure. Azerb.neft.khoz. 36 no.1:7-9 Ja '57. (MLRA 10:5)

(Karadag--Petroleum geology)

KIREYEV, V. F.

AGAMALIYEV, G.M.; KIREYEV, V.F.

Electric and radioactive properties of the series intersecting the pay formation in the southern spur of the Karadag fold. Azerb. neft.khoz. 36 no.3:10-13 Mr '57. (MLRA 10:5)
(Karadag--Oil well logging)

LITVINOV, S.Ya.; KIRNYAV, V.F.

Change in the thickness of the producing formation and lithofacies characteristics of Balakhan horizons in the Peschanyy offshore area. Izv.vys.uchab.zav.; neft' i gaz 1 no.10:3-8 '58. (MIRA 12:4)

1. Azerbaydzhanskiy industrial'nyy institut imeni M.Azizbekova.
(Peschanyy Island--Petroleum geology)

MAMEDOV, M.K.; KIREYEV, V.F.

Balakhan' series in the eastern wing of the Karadag fold and its oil potential. Azerb. neft. khoz. 37 no.9:1-3 S '58.

(MIRA 11:12)

(Apsheron Peninsula--Petroleum geology)

MAMEDOV, M.K.; KIREYEV, K.F.

Geophysical data on the Supra-Kirmaki sand series in the Karadag field. Azerb.neft.khoz. 37 no.12:1-4 D '58. (MIRA 12:3)
(Apsheron Peninsula--Petroleum geology)
(Apsheron Peninsula--Gas, Natural--Geology)
(Prospecting--Geophysical methods)

NAMEDOV, M.K.; KILEYEV, V.F.

Reasons for changes in the logging characteristics of sediments of the Supra-Kirmaki arenaceous and Sub-Kirmaki series of the Peschanyy Island field. Azerb. neft. khoz. 39 no.3(405):5-8 Mr '60.
(MIRA 1419)
(Peschanyy Island--Oil well logging)

KIREYEV, V.F.

Field and geophysical characteristics of the lower Apsheron sediments of the Kalmas area in connection with their oil and gas potentials. Izv.vys.ucheb.zav.; neft' i gaz. 4 no.7:3-7 '61. (MIRA 14:10)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova. (Azerbaijan--Petroleum geology) (Azerbaijan--Gas, Natural--Geology)

KIREYEV, V.F., inzh.

VTN-0,5 hemp loader. Trakt. i sel'khozmash. 31 no.11:33-34 N '61. (MIRA 14:12)

1. Tsentral'no-Chernozemnaya mashinoispytatel'naya stantsiya.
(Hemp)
(Loading and unloading)

LI, P. N. (Candidate of Veterinary Sciences, Saratov NIVS), MASLOVA, Z. V. (Veterinary Surgeon of the Oblast' Veterinary Bacteriological Laboratory) and KIREYEV, V. P. (Veterinary Surgeons of the Saratov Government Station of Artificial Insemination of Animals)

"About the ulcerative posthitis in bulls and sire rams"
Veterinariya, vol. 39, no. 6, June 1962 pp. 51

YAKUBOV, A.A.; KIREYEV, V.F.

Nature of sediments and an oil- and gas-bearing cross section of the Sub-Kirmaki series of the Zyrya field. Izv. vys. uchob. zav.; neft' i gaz 4 no.1:3-7 '61. (MIRA 15:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova.
(Apsheron Peninsula--Petroleum geology)
(Apsheron Peninsula--Gas, Natural--Geology)

KIREYEV, V.F.; MAKHMUDOVA, V.M.

Electric logging characteristics of the Kala series in the Zyrya field in connection with their oil and gas potentials. Izv. vys. uch. zav.; neft' i gaz 5 no.9:17-22 '62.
(MIRA 15:5)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

KIREYEV, V.F.; LOGOVSKAYA, G.K.

Method for determining the actual thicknesses in the cross section of the producing formation of the Kalmas field. Azerb. neft. khoz. 42 no.1:9-11 Ja '63. (MIRA 16:10)

(Kura Lowland--Oil well logging, Electric)

L 24912-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6007680 SOURCE CODE: UR/0413/66/000/003/0050/0050

AUTHOR: Pakushin, G. N.; Bush, V. P.; Sandakov, Ye. A.; Gazizov, R.F.; Rashidov, N. F.; Todyshev, Yu. G.; Kireyev, V. G.

ORG: none

TITLE: Elastic container for storing and transporring liquids. Class 33, No. 178459

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 50

TOPIC TAGS: liquid container, portable container, elastic container

ABSTRACT: An Author Certificate has been issued describing a portable elastic container for storing and transporring liquids, which has a detachable fastener for the filling opening. To facilitate cleansing of the internal surface, the detachable fastener is a part of the filling opening which is equipped with clamping strips and a brass-type lock. To prevent the liquid from shifting in the container when it is partly full, there is a tightening belt attached to one of the clamp strips at the bottom of the container. (see Fig. 1).

[LD]

Card 1/2 UDC: 685.514.32

L 24512-66
ACC NR: AP6007680

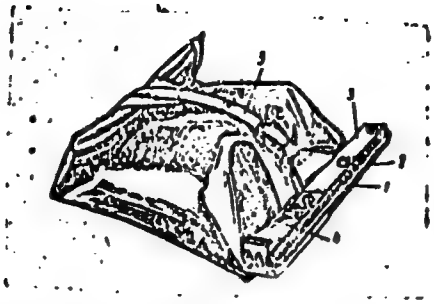


Fig. 1. Elastic containers for storing and transporting liquids. 1 - filling opening; 2 and 3 -- clamping strips; 4 - brass-type lock; 5 - tightening belt.

SUB CODE: 1/3 SUBM DATE: 20Nov64/

Card 2/2 BLG

KIREYEV, V. I., kand. med. nauk

Prolonged closed drainage of the extrahepatic bile ducts following their injury. Khirurgiia 37 no.7:127-128 Jl '61.
(MIRA 15:4)

1. Iz kafedry obshchey khirurgii (zav. - zaslushennyy deyatel' nauki UkrSSR prof. D. A. Vasilenko) Dnepropetrovskogo meditsinskogo instituta.

(BILE DUCTS—WOUNDS AND INJURIES)

KIREYEV, V. I., kand. med. nauk

Prolonged closed drainage of the extrahepatic bile ducts following their injury. Khirurgiia 37 no.7:127-128 Jl '61.
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(BILE DUCTS--WOUNDS AND INJURIES)

KIREYEV, V.N., kandidat tekhnicheskikh nauk.

Wear resistance of a chain working in an abrasive medium. Stroi.i dor.mashinostr. 1 no.10:10-14 O '56. (MLRA 9:8)
(Chains)

SOLNTSEV, K.M., kand. sel'skokhozyaystvennykh nauk.; KIREYEV, V.N., kand. sel'skokhozyaystvennykh nauk

Two-stage method of harvesting oil varieties of sunflower. Zhivotnovodstvo 20 no. 7:27-30 Jl '58. (MIRA 11:8)

1. Balashovskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.

(Sunflowers--Harvesting)

DEMIN, Anatoliy Ivanovich[D'omin, A.I.]; PILIPENKO, Yuriy Petrovich [Pylypenko, IU.P.]; KIREYEV, Vasiliy Petrovich [Kyrieiev, V.P.]; SUSHKO, I.S., red.; BERMAN, Z.G. [Berman, Z.H.], tekhn. red.

[Repair of tractors and automobiles; manual for secondary schools] Remont traktoriv i avtomobiliv; pidruchnyk dlia seredn'oi shkoly. Kyiv, Derzh. uchbovo-pedagog. vyd-vo "Radians'ka shkola," 1960. 291 p. (MIRA 14:11)

(Motor vehicles—Maintenance and repair)

LI, P.N., kand. veterin. nauk; MASLOVA, Z.V., veterinarnyy vrach; KIREYEV, V.P., veterinarnyy vrach

Ulcerous posthitis in herd bulls and rams. Veterinariia 39 no.6: 51-53 Je '62 (MIRA 18:1)

1. Saratovskaya nauchno-issledovatel'skaya veterinarnaya stantsiya (for Li). 2. Saratovskaya oblastnaya veterinarno bakteriologicheskaya laboratoriya (for Maslova). 3. Saratovskaya gosudarstvennaya stantsiya iskusstvennogo osemeneniya zhivotnykh (for Kireyev).

KIRKYEV, V.R.

Measurement of the voltampere characteristic of tunnel diodes.
Elektrosvyaz' 19 no.9:75-77 S '65. (MIRA 18:9)

L 41107-66 EWT(1)

ACC NR: AR6014600 SOURCE CODE: UR/0274/65/000/012/A016/A016

AUTHOR: Kireyev, V. R.

TITLE: Stability of electric LC filters with negative resistances

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 12A122

REF SOURCE: Tr. Uchebn. in-tov svyazi, vyp. 25, 1965, 173-182

TOPIC TAGS: electric filter, filter circuit, circuit theory

ABSTRACT: It is shown that the search for the stability conditions for LC filters with negative resistances can be significantly simplified by using frequency transformation and the reversibility relation for electric filter circuits. The proofs for three theorems necessary to verify the indicated condition are presented. Theorem 1 states that, if one electric circuit is obtained from another by transformation of the complex frequency $p = \varphi(p')$, the new characteristic equation can be obtained from the old by transformation of the complex frequency of the same form. Theorem 2 states that, if an electric circuit is obtained from another by a transformation of the form $p = Ap'$ or $p = \frac{A}{p'}$, where $A > 0$, the original and derived circuits have the same stability conditions. Theorem 3 shows that the characteristic equations of two mutually reversible circuits differ by only a constant multiplier. 4 illustrations. L. S. [Translation of abstract]

Card 1/1 SUB CODE: 09 11b UDC: 621.372.54

KIREYEV, V.S., kand. tekhn. nauk

English conveyors and cranes. Mekh. i avtom. proizv. 17 no.12: 49-51 D'63. (MIRA 17:2)

KIREYEV, V.S., inzh.

Over-all mechanication of reloading operations. Mekh.i avtom. proizv. 14 no.8:36-39 Ag '60. (MIRA 13:8)
(Loading and unloading--Technological innovations)

KIREYEV, V. S.

Cand Tech Sci - (diss) "Problems of the theory and design of container self-sling ropes /avtostropy/." Khar'kov, 1961. 15 pp; (Ministry of Railways USSR, Khar'kov Inst of Railroad Transport Engineers imeni S. M. Kirov); 150 copies; price not given; (KL, 6-61 sup, 218)

KIREYEV, V.S., kand.tekhn.nauk

British exhibition of conveying and hoisting machinery.
Mekh.i avtom.proizv. 16 no.10:54-56 O '62. (MIRA 15:11)
(Great Britain--Exhibitions)
(Conveying machinery) (Hoisting machinery)

KIREYEV, V.S., kand.tekhn.nauk

Equipment for installing contact network poles. Transp. stroi. 12 no.12:53-54 D '62. (MIRA 16:1)
(Great Britain--Railroads--Electrification)

AKSENOV, N.S., inzh.; KIREYEV, V.S., kand. tekhn. nauk

Means for the mechanization of handling high-capacity containers. Mekh. i avtom. proizv. 17 no.6:57-60 Je '63. (MIRA 16:7)

(Materials handling)

L 46675-66 EWP(m)/EWT(1) WW

ACC NR: AP6020722 SOURCE CODE: UR/0421/66/000/003/0031/0038

AUTHOR: Dem'yanov, Yu. A. (Moscow); Kireyev, V. T. (Moscow) 60 B

ORG: none

TITLE: Application of the equations of nonstationary mixing to certain aerodynamic problems

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 3, 1966, 31-38

TOPIC TAGS: shock wave reflection, shock wave interaction, aerodynamic boundary layer, boundary layer transition

ABSTRACT: In view of the simplifications that result in gas dynamics when tangential discontinuities are replaced by mixing (transition) regions, the authors analyze the self-similar solutions of the equations of nonstationary turbulent mixing in full analogy with an analysis by one of the authors (Dem'yanov, Nauchn. dokl. vysshey shkoly Fiziko-matem. nauki, 1958, no. 3) of the equations of laminar mixing, coinciding with the boundary-layer equations. It is shown that these self-similar solutions are valid also for the problem of formation of stationary jets and mixing regions in a bottom wake. As an example of the discussed procedure, the authors solve approximately the problem of interaction between a shock wave reflected from a semi-infinite wall and the boundary layer on a horizontal plate behind the incident shock wave. The results are used to analyze reflection in a shock tube. The calculation results are in good agreement with published experimental data. Orig. art. has: 3 figures and 31 formulas.

SUB CODE: 20/ SUBM DATE: 31Dec64/ ORIG REF: 008/ OTH REF: 005

Card 1/1 hs

L 43999-66 EWT(1)/EWP(m)

ACC NR: AP6030121 SOURCE CODE: UR/0421/66/000/004/0177/0180

AUTHOR: Kireyev, V. T. (Moscow)

ORG: none

TITLE: Establishing steady-state mixing in jets

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 4, 1966, 177-180

TOPIC TAGS: jet flow, turbulent mixing, jet mixing

ABSTRACT: The flow of plane and axisymmetric jets is analyzed. Using the method of integral relationships, an approximate calculation is presented of the time for establishing steady-state flow mixing at various cross sections of a jet. Orig. art. has: 24 formulas. [AS]

SUB CODE: 20/ SUBM DATE: 21Jul65/ ORIG REF: 004/ OTH REF: 001
ATD PRESS: 5071

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